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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,834	02/13/2002	Edward Raynes Eaton	TH1871Y	6354
23632	7590	09/14/2007		
SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463			EXAMINER OGDEN JR, NECHOLUS	
			ART UNIT	PAPER NUMBER
			1751	
			MAIL DATE	DELIVERY MODE
			09/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/074,834

Applicant(s)

EATON ET AL.

Examiner

Necholus Ogden

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Response to Amendment

1. Claims 1 and 4-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/886,298.
2. Claim 4-5 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn in view of applicant's amendment.
3. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Arntz et al (5,015,789).

Arntz et al disclose a method of preparing 1,3 propanediol by hydrating acrolein in the presence of an acidic cation exchanger resin to form 3-hydroxypropionaldehyde, by reacting acrolein and water (see claim 1).

As Arntz et al disclose all of the instantly required it is considered anticipatory. In the alternative, Arntz et al is silent with respect to the electrical resistivity of greater than 250; a boiling point of greater than 90 degrees Celsius; a thermal conductivity of greater than 0.4W W/m-k; a viscosity of less than 1cPs at 80 degrees Celsius and less than 6 cPs at 0 degrees Celsius; a heat capacity of greater than 3KJ/kg-K; and a corrosion of aluminum heat rejecting surface capacity as measured by ASTM D-4340 of less than 0.1 mg/cm²/week. However, it would have been inherent to the compositions disclosed in Arntz et al to comprise the characteristics disclosed above because Arntz et al disclose the same compound as claimed in the instant application, wherein one of ordinary skill in the art would expect similar characteristics .

4. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP (06026979).

JP '979 discloses a leak detecting agent liquid composition comprising an antifreeze agent such as 1,3-propanediol, water, a rust preventing agent and a preservative (see abstract).

JP '979 et al disclose all of the instantly required it is considered anticipatory. In the alternative, Arntz et al is silent with respect to the electrical resistivity of greater than 250; a boiling point of greater than 90 degrees Celsius; a thermal conductivity of greater than 0.4W W/m-k; a viscosity of less than 1cPs at 80 degrees Celsius and less than 6 cPs at 0 degrees Celsius; a heat capacity of greater than 3KJ/kg-K; and a corrosion of aluminum heat rejecting surface capacity as measured by ASTM D-4340 of less than 0.1 mg/cm²/week. However, it would have been inherent to the compositions disclosed in JP '979 to comprise the characteristics disclosed above because JP '979 disclose the same compound as claimed in the instant application, wherein one of ordinary skill in the art would expect similar characteristics.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP (06026979).

JP '979 is relied upon as set forth above. Specifically, JP '979 is silent with respect to the proportions of the antifreezing agent and in particular 1,3-propanediol.

However, it would have been obvious to employ said 1,3-propanediol in the amounts claimed because JP '979 appear to suggest that said antifreezing agent is the

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main component (see abstract) and one of ordinary skill would have motivated to optimize the proportions in the absence of a showing to the contrary.

An obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not. See KSR Int'l Co. v. Teleflex Inc., 550 U.S. ___, 2007 WL 1237837, at *12 (2007) ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.").

Response to Arguments

Applicant argues that the method of producing 1,3-propanediol of Arntz et al do not suggest an aqueous solution.

The examiner contends that the compositions of Arntz et al are reacted with water (see claim 1). Moreover, applicant's claims do not require the coolant to be aqueous only the 1,3-propanediol is aqueous which Arntz et al suggest.

Applicant argues that Arntz et al does not suggest an electrical resistivity of greater than 250 KOhms-cm.

The examiner contends that it would have been inherent to the compound of Arntz et al to suggest said electrical resistivity because the claim only requires 1,3-propanediol and this is suggested by Arntz et al and therefore Arntz et al would encompass the characteristics of the claimed invention.

"[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer." Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property, which is inherently present in the prior art does not

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necessarily make the claim patentable. In re Best, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977)

Applicant argues that Arntz et al do not suggest tap or deionized water and the Declaration submitted by Dr. Glenn Komplin on December 5, 2006 showed difference in electrical resistivity among deionized and tap water.

The examiner contends that the type of water is not specified, however, the claims do not suggest nor specify any additional water employed in said coolant composition. Moreover, the showing is not commensurate in scope with claimed invention. Applicant's showing suggest 1,3-propanediol and deionized water in specific proportions, wherein the claims are drawn to an aqueous 1,3-propanediol compound without specifying what type of water and without specifying the claimed range.

Accordingly, criticality has not been established and therefore is given little weight.

Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. In re Clemens, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Necholus Ogden
Primary Examiner
Art Unit 1751

No
9-6-2007